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STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

CASE 10,620

EXAMINER HEARING

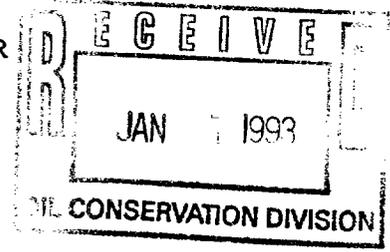
IN THE MATTER OF:

Application of Yates Petroleum Corporation for  
downhole commingling, Eddy County, New Mexico

**ORIGINAL**

TRANSCRIPT OF PROCEEDINGS

BEFORE: DAVID R. CATANACH, EXAMINER



STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

December 3rd, 1992

A P P E A R A N C E S

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FOR THE DIVISION:

ROBERT G. STOVALL  
Attorney at Law  
Legal Counsel to the Division  
State Land Office Building  
Santa Fe, New Mexico 87504

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE & SHERIDAN, P.A.  
Attorneys at Law  
By: WILLIAM F. CARR  
Suite 1 - 110 N. Guadalupe  
P.O. Box 2208  
Santa Fe, New Mexico 87504-2208

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I N D E X

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E X H I B I T S

APPLICANT'S EXHIBITS:

Exhibit 1	6
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Exhibit 3	12
Exhibit 4	12

\* \* \*

1           WHEREUPON, the following proceedings were had  
2 at 10:00 a.m.

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7           EXAMINER CATANACH: At this time we're going  
8 to call Case 10,620.

9           MR. STOVALL: Application of Yates Petroleum  
10 Corporation for downhole commingling, Eddy County, New  
11 Mexico.

12           EXAMINER CATANACH: Are there appearances in  
13 this case?

14           MR. CARR: May it please the Examiner, my  
15 name is William F. Carr with the Santa Fe law firm of  
16 Campbell, Carr, Berge & Sheridan.

17           We represent Yates Petroleum Corporation, and  
18 I have one witness.

19           EXAMINER CATANACH: Any other appearances?

20           And I believe the witness has already been  
21 sworn in, in a previous case.

22           MR. CARR: And have Dr. Boneau's credentials  
23 been accepted and made a matter of record as an expert  
24 in petroleum engineering?

25           EXAMINER CATANACH: Yes, they have.

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DAVID F. BONEAU,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARR:

Q. Dr. Boneau, would you briefly state what Yates seeks with this Application?

A. In this case Yates seeks the authority to commingle Bone Spring and Delaware production in the wellbore of the Yates Pauline ALB State Number 6 well.

Q. Could you briefly review for Mr. Catanach the history of this well?

A. This well was originally drilled by Santa Fe Energy in 1988 to approximately 15,000 feet.

During the drilling, Santa Fe DST'd the uppermost part of the Bone Spring formation and tested some oil on that DST.

They completed drilling the well and plugged and abandoned it.

In 1992, Yates re-entered the well -- obtained the lease, and then Yates re-entered the well with the Bone Spring and the Delaware being the target zones.

We really hoped the Bone Spring would be fantastic and we'd have a Bone Spring well, but the

1 Bone Spring turned out to be about a five- to ten-  
2 barrel-of-oil-per-day producer.

3 And we also then went and completed four  
4 Delaware zones above the Bone Spring, and we are now  
5 seeking to commingle those.

6 Actually, we filed for administrative  
7 approval to commingle Bone Spring and Delaware, and  
8 those papers were filed in September at the time the  
9 well was completed, and the result of that filing was  
10 that the OCD set this matter for hearing today.

11 Q. Dr. Boneau, if you would refer to what has  
12 been marked as Yates Exhibit 1, which is a portion of  
13 the administrative filing, and first refer to the plat,  
14 and review the information on that plat for Mr.  
15 Catanach.

16 A. Exhibit 1 contains 10 pieces of paper, I  
17 believe, ten pages, and it's the heart of our  
18 administrative application.

19 The first page of Exhibit 1 -- It's marked at  
20 the top "Attachment A", but it's a map showing the  
21 location of the Pauline well in Unit J of Section 32,  
22 23-31.

23 The marking -- Well, there's an arrow  
24 pointing to it, and it's in the middle of the map.

25 The writing next to the well location says

1 Santa Fe Energy Sterling Silver, TD 15,034, and that's  
2 the original well drilled by Santa Fe. Yates re-  
3 entered that well.

4 The well is dedicated only to the 40 acres  
5 that are the northwest quarter of the southeast quarter  
6 of Section 23.

7 The offset owners are shown on the map, and  
8 they include Meridian, who is the present name of El  
9 Paso, Phillips also in Section 31, Enron in the north  
10 part of Section 32, and Santa Fe Energy to the east and  
11 southeast and south.

12 So there are four offset owners. We're  
13 talking about federal land here.

14 Q. Okay, let's move to the schematic drawing in  
15 Exhibit Number 1, and I would ask you to review for Mr.  
16 Catanach how the well is actually physically completed.

17 A. Okay, we're now talking about the schematic,  
18 which is the first legal-size piece of paper in Exhibit  
19 1.

20 When Santa Fe drilled the well, they set  
21 surface and intermediate casing, and they also set  
22 seven-inch at 12,000 feet and a liner below that.

23 When they plugged the well, they shot off the  
24 seven-inch casing at about 6200 feet and pulled the top  
25 of the seven-inch.

1           So Yates re-entered the well and cleaned out  
2 plugs, et cetera, down to about 6200 feet, and then  
3 tied back in seven-inch casing and cemented that from  
4 around 6200 feet up to almost the surface, up to 1200  
5 feet from the surface.

6           Then Yates tested the Bone Spring, and we  
7 acidized and frac'd the Bone Spring, but it produced  
8 only a little, really didn't produce very much.

9           So we went uphole and opened four Delaware  
10 zones, and the Delaware zones are listed on this  
11 schematic as D1, D2, D3 and D4, and the perforations  
12 are shown there. The top perforations are 7511 to  
13 7529, and the bottom Delaware perforations are 7868 to  
14 7936.

15           You notice this is not really very far above  
16 the Bone Spring perforations at 8037 to 8045, so the  
17 Delaware is barely a hundred feet above the Bone Spring  
18 perforations.

19           Yates acidized and frac'd those Delaware  
20 perforations and then installed pumping equipment and  
21 pumped the well. And initially it made about 200  
22 barrels of oil a day and 200 barrels of water a day,  
23 and that's fallen off somewhat.

24           Q. Is the ownership in both of the zones that  
25 are being commingled common, both working interest and

1 royalty interest?

2 A. Yes, sir, there's the same interest in the  
3 Delaware and the Bone Spring.

4 Q. Have you conducted productivity tests on this  
5 well?

6 A. Yes, what we did was complete the well as I  
7 described, and at that time we were talking to Mike  
8 Williams at the Artesia NM OCD office.

9 And about ten days after we put the well in  
10 production, we shut the well in and pulled the tubing,  
11 ran a tubing and packer into the well to isolate the  
12 Bone Spring, and we swab-tested the Bone Spring  
13 formation. It produced at a rate of about 14 barrels  
14 of oil per day on that test.

15 And on the basis of that test, we assigned  
16 -- it actually was producing 202 barrels a day  
17 immediately before that, and we broke down the  
18 production into 14 barrels from the Bone Spring and 188  
19 from the Delaware.

20 And that test is the basis for our suggested  
21 allocation in the commingling.

22 Q. The well is producing water?

23 A. The well is producing water. The well is  
24 producing -- has always produced about as much water as  
25 oil.

1           And there was a water test -- We got a water  
2 rate at that same time, and I believe that was 22  
3 barrels of water a day from the Bone Spring and -- by  
4 subtraction we then had 178 barrels of water a day from  
5 the Delaware.

6           Q.    Have you been able to establish production  
7 decline curves for these zones?

8           A.    At the time we made the administrative  
9 filing, we did some calculations based on typical  
10 decline curves in order to get a breakdown of reserves,  
11 and those calculations are detailed in this Exhibit 1.

12           The -- since that time -- We're talking about  
13 September, so the last three or four months we have  
14 real production data.

15           And the well has declined, and the actual  
16 decline is a little steeper than what was assumed in  
17 those calculations.

18           Q.    Have you reviewed the bottomhole pressure on  
19 each zone?

20           A.    The bottomhole pressures are similar in the  
21 two zones. They're very close together in the well.

22           The bottomhole pressure in the Bone Spring  
23 formation was measured by Santa Fe on their DST, and  
24 that was 2941 p.s.i., I believe.

25           The Delaware pressure is almost surely about

1 2800 p.s.i., and that's based on a gradient in this  
2 well, and it's also based on a lot of other Delaware  
3 experience in the same area.

4 Q. So there shouldn't be a pressure differential  
5 that would cause migration downhole between zones?

6 A. The pressures in the zones are very close to  
7 start with, and I'm sure they balanced out quickly  
8 after production started.

9 Q. Would there be any problem with compatibility  
10 of the fluids being produced?

11 A. No, both zones produce sweet oil and sweet  
12 gas, and there should be no compatibility problem.

13 Q. Dr. Boneau, let's go to what has been marked  
14 as Yates Exhibit Number 2, and I'd ask you to identify  
15 that and review this for Mr. Catanach.

16 A. Yates Exhibit Number 2 is a tabulation of the  
17 daily production from the Yates Pauline Number 6 well,  
18 from initial production on August 23rd of this year  
19 through the last day I was in Artesia, which I think  
20 was like last Friday.

21 And what it shows is that oil production has  
22 declined from -- a few early days were almost 300  
23 barrels of oil per day, but around 200 early in its  
24 life, and it's declined to where it's now making about  
25 75 to 80 barrels of oil per day.

1           Likewise, the water production has declined  
2 almost in step with that, and the gas production from  
3 the well has declined from about 400 MCF per day to  
4 about 100 MCF per day.

5           So at the well making 80 barrels of oil per  
6 day, we're talking about five barrels of oil coming  
7 from the Bone Spring and 75 barrels of that coming from  
8 the Delaware.

9           So we're asking to commingle five barrels of  
10 Bone Spring oil with the 75 barrels of Delaware oil.

11          Q.   And what is the percentage allocation, do you  
12 know, that you're recommending?

13          A.   We're recommending that six percent be  
14 allocated to the Bone Spring and 94 percent be  
15 allocated to the Delaware.

16          Q.   Is Yates Exhibit Number 3 a compilation of  
17 letters to the Oil Conservation Division, Santa Fe and  
18 Artesia Office, and also to the BLM, providing them  
19 with copies of the original administrative application?

20          A.   Yes, sir, that's what Exhibit 3 is.

21          Q.   And is Exhibit Number 4 copies of waiver  
22 letters from all offsetting owners?

23          A.   Exhibit 4 are waiver letters from each and  
24 every one of the offset operators.

25          Q.   In your opinion, will approval of this

1 Application result in the increased recovery of oil?

2 A. Yes, sir, approval of this Application is the  
3 only reasonable way to produce this five barrels of  
4 Bone Spring oil per day. Otherwise, it's going to be  
5 gone.

6 Q. In that case, the value of the commingled  
7 production will exceed the values of the individual  
8 zones?

9 A. Yes, sir, the Bone Spring oil is simply  
10 incremental, for-free oil that we can get this way.

11 Q. In your opinion, will approval of this  
12 Application be in the best interests of conservation,  
13 the prevention of waste and the protection of  
14 correlative rights?

15 A. Yes, sir.

16 Q. Were Exhibits 1 through 4 either prepared by  
17 you or compiled under your direction?

18 A. Yes, sir.

19 MR. CARR: Mr. Catanach, at this time we move  
20 admission of Yates petroleum Corporation Exhibits 1  
21 through 4.

22 EXAMINER CATANACH: Exhibits 1 through 4 will  
23 be admitted as evidence.

24 MR. CARR: And that concludes my examination  
25 of Dr. Boneau.

## EXAMINATION

1  
2 BY EXAMINER CATANACH:

3 Q. Dr. Boneau, would you recommend that the gas  
4 be allocated in the same amount as the oil?

5 A. Yes, sir, that's our recommendation. We  
6 really have no information that's different from that,  
7 no solid information that says that, but that's the  
8 most reasonable thing to do. That's what I recommend.

9 Q. Is the well currently being pumped?

10 A. Yes, the well's being pumped.

11 EXAMINER CATANACH: Okay, I have nothing  
12 further in this case.

13 MR. CARR: We have nothing further in this  
14 case.

15 EXAMINER CATANACH: There being nothing  
16 further, Case 10,620 will be taken under advisement.

17 (Thereupon, these proceedings were concluded  
18 at 11:15 a.m.)

19 \* \* \*

20  
21 I do hereby certify that the foregoing is  
22 a complete record of the proceedings in  
the Examiner hearing of Case No. 10620,  
heard by me on December 3, 1992 :

23 David R. Catanach, Examiner  
24 Oil Conservation Division  
25

1 CERTIFICATE OF REPORTER

2

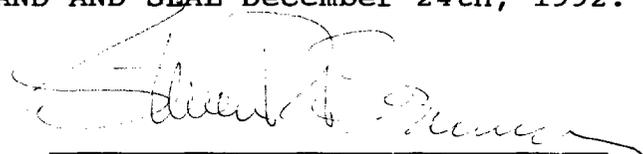
3 STATE OF NEW MEXICO )  
 4 COUNTY OF SANTA FE ) ss.

5

6 I, Steven T. Brenner, Certified Court  
 7 Reporter and Notary Public, HEREBY CERTIFY that the  
 8 foregoing transcript of proceedings before the Oil  
 9 Conservation Division was reported by me; that I  
 10 transcribed my notes; and that the foregoing is a true  
 11 and accurate record of the proceedings.

12 I FURTHER CERTIFY that I am not a relative or  
 13 employee of any of the parties or attorneys involved in  
 14 this matter and that I have no personal interest in the  
 15 final disposition of this matter.

16 WITNESS MY HAND AND SEAL December 24th, 1992.

17 

18 STEVEN T. BRENNER  
 19 CCR No. 7

20 My commission expires: October 14, 1994

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